Red Line /Blue Line Connector Update

April 30, 2018
FMCB Presentation

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Red Line/Blue Line Connector

- The Red Line/Blue Line Connector (RBC) project studied during the 2010 DEIR process would have linked the only two lines that do not currently intersect within the MBTA's rapid transit system by extending the Blue Line for approximately 1,500 feet beyond Bowdoin to connect with the Charles/MGH station on the Red Line.

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History of RBC

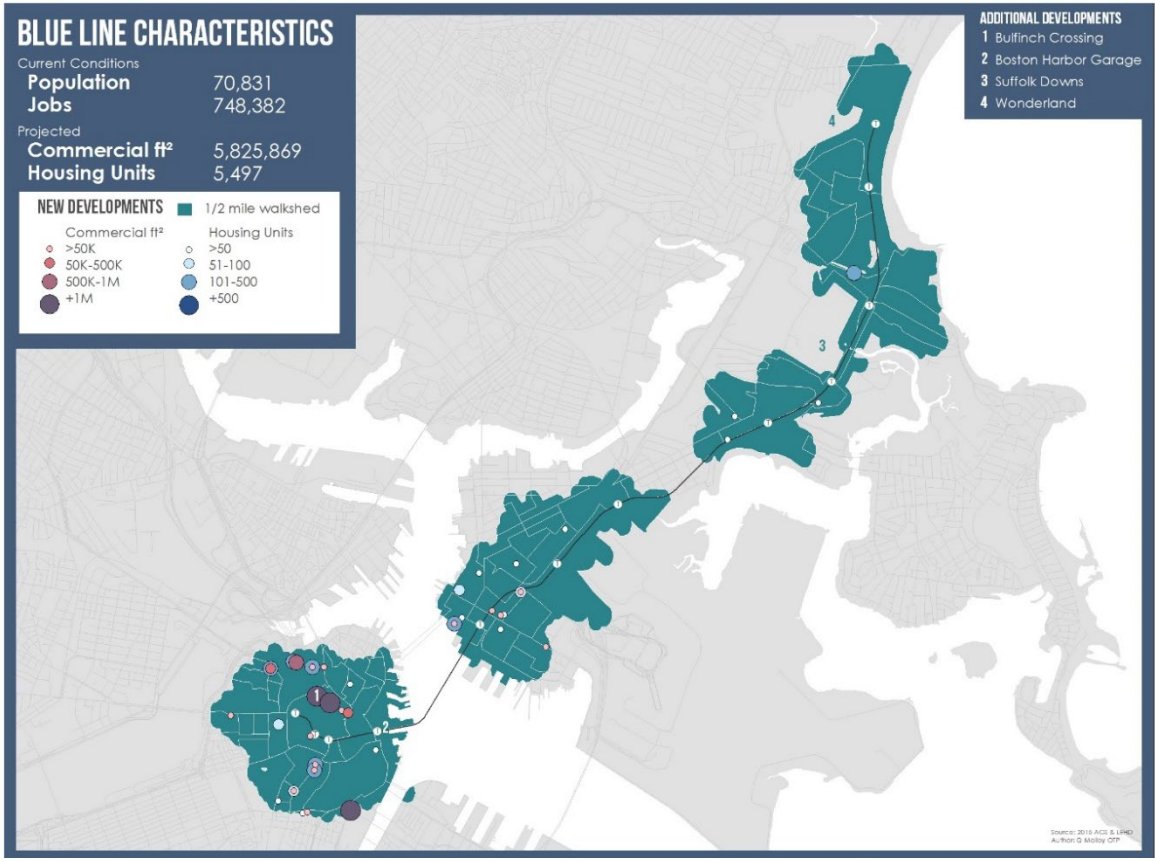
- 1986 - Feasibility Study and Final Report
- 1990 - Central Artery/ Tunnel Project SIP transit commitments included construction of the RBC.
- 2009 – MassDEP Air Pollution Control Regulations, appended to the SIP for ozone, downgrade the commitment to complete design by 2011.
- 2010 - MEPA Draft Environmental Impact Report (DEIR) issued and approved.
  - Two parallel TBM tunnels under Cambridge Street, twin tail tracks for train storage.
  - Preferred Alternative eliminated Bowdoin Station from the Blue Line route and estimated to cost $750m.
- 2011 - MassDOT initiated a process to amend the SIP to permanently remove the obligation to perform final design due to high costs.
- 2015 - EPA approved a revision submitted by the Commonwealth of Massachusetts to remove the design the RBC project from the SIP.

Update to RBC Study

- At the request of the FMCB, MassDOT and the MBTA will conduct a $50,000 study to:
  - Evaluate and compare development trends on a Red-Blue connector since DEIR, and
  - Update construction options and methodologies previously considered.
- 3-month study
  - Initiated April 2018 with anticipated completion July 2018
- Study tasks
  - Task 1: Review DEIR Assumptions and Analyze Changes Since DEIR Analysis
    - Analyze and document land use changes in the area
    - Analyze and document ridership trends
  - Task 2: Construction Methods Evaluation
    - Review DEIR Preferred Alternative
    - Review construction method presented in the DEIR
    - Identify and analyze alternative methods of construction

Land Use

- Compare Land Use and Demographics
  - DEIR existing conditions / DEIR horizon year (2030)
  - Current conditions (MAPC)
- Identify Land Use Changes
  - East Boston
  - West End
  - Kendall Square
  - Others
- Identify Future Growth
  - Stakeholder coordination
  - Planned development
  - Planning studies



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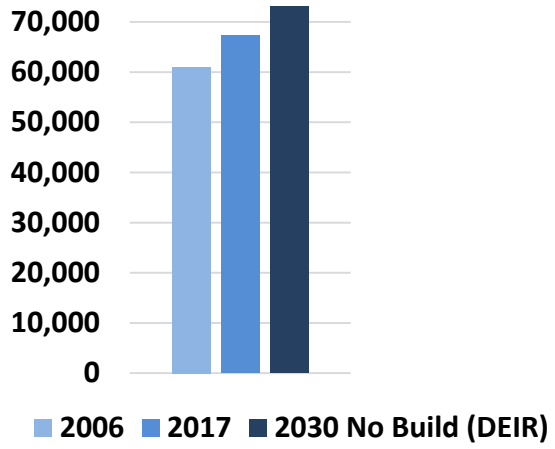
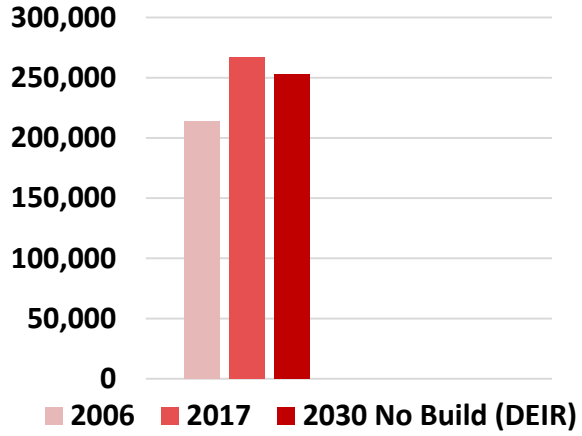
Ridership Trends

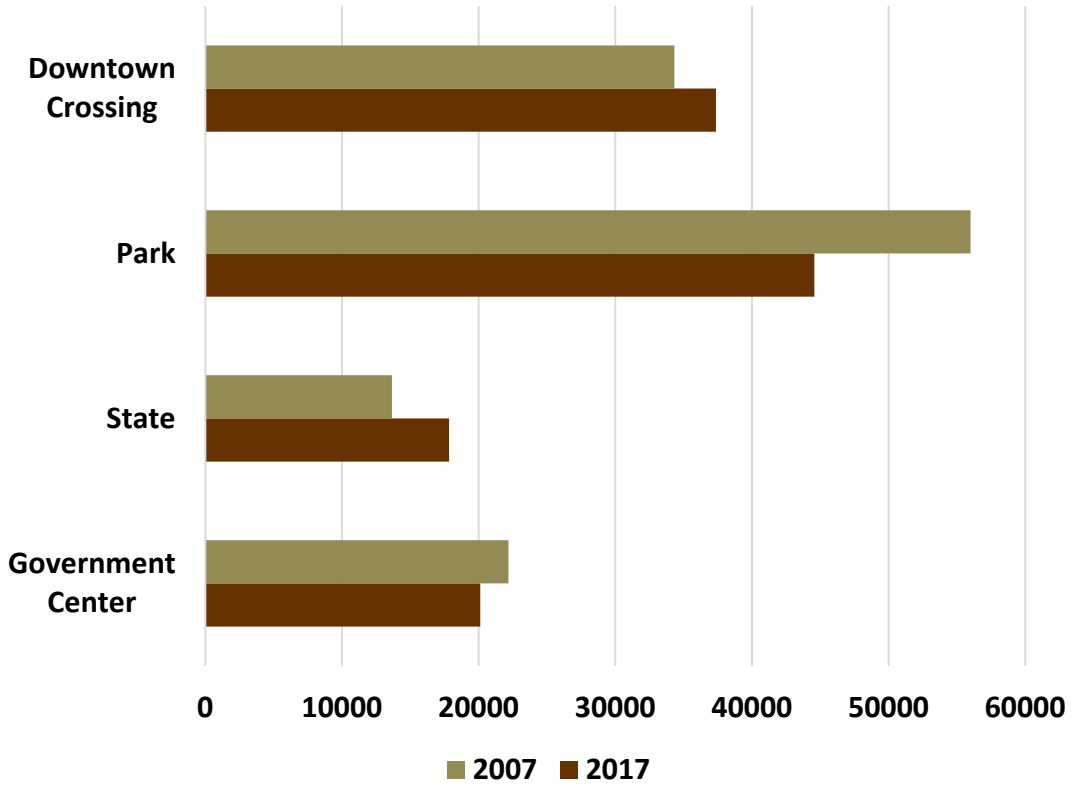
Blue Line Weekday Trips



Red Line Weekday Trips



Average Weekday Subway Transfers



Notes:

RBC study will have the benefit of OPMI's ODX tool (including 2017 transfer data).

Comparison of transfer data is not direct as data collection methodologies differ.

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Ridership Data Sources:

Red Line/Blue Line Connector Project DEIR March 2010; OPMI (2017)

Construction Methods Evaluation

- Scope:
  - Review the preferred alignment, including the potential outcomes for Bowdoin Station.
  - Review rationale for recommended method of construction and establish if still relevant.
  - Identify alternative methods of construction and identify potential cost and time savings or other benefits of new methods for consideration.
  - Identify opportunities to minimize operations impacts during construction.

Construction Methods Evaluation

- Alternatives to Tunnel Boring Machine
  - Sequential Excavation (NATM)
    - Less surface impact
    - Minimize utility impacts
    - More economical than TBM
  - Cut/Cover
    - Significant community impacts
    - Significant utility impacts
    - Most economical

Method	Cost	Surface Disruption	MBTA Operations Disruption
TBM	High	Low	Medium
Sequential Excavation	Medium	Medium-Low	Medium
Cut and Cover	Low	High	Medium

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Questions the Study will Answer

- How does recent and expected growth in the Red and Blue Line corridors (in particular in East Boston, Logan Airport, the West End, MGH, and Kendall) compare with the assumptions in the 2010 DEIR?
- What are the high-level implications (constructability, cost, impacts on both surface and MBTA operations) of the DEIR preferred construction method and alternative approaches to delivering the project?
- Should the DEIR recommendation to eliminate Bowdoin Station be revisited?